

PART IV

The Pattern of Agriculture

Farms: Number and Size

Most of the agriculture in Chelan County is on medium-size and small farms. About two-thirds of all the farms in the area are under 30 acres in size. A total of 1,875 land properties were classified as farms in 1954.

The number of farm operations has dropped by 325 since 1930 and the average size has increased. In common with a general trend over the state and nation, farms are becoming fewer in number and larger in size. As a rule, smaller farms are being consolidated with larger ones through purchase or lease. Despite the trend toward larger farms, however, the average-size Chelan County farm of 131 acres is considerably below the Washington State average of 270 acres.

The numerical dominance of smaller-sized farms results from earlier land purchase methods, high land values, some suburban living, and some part-time tree fruit farming. During earlier settlement, considerable irrigated land and small orchard plots were sold in units of 20, 40, and 80 acres. Many of the original 160 acre homesteads were subdivided into

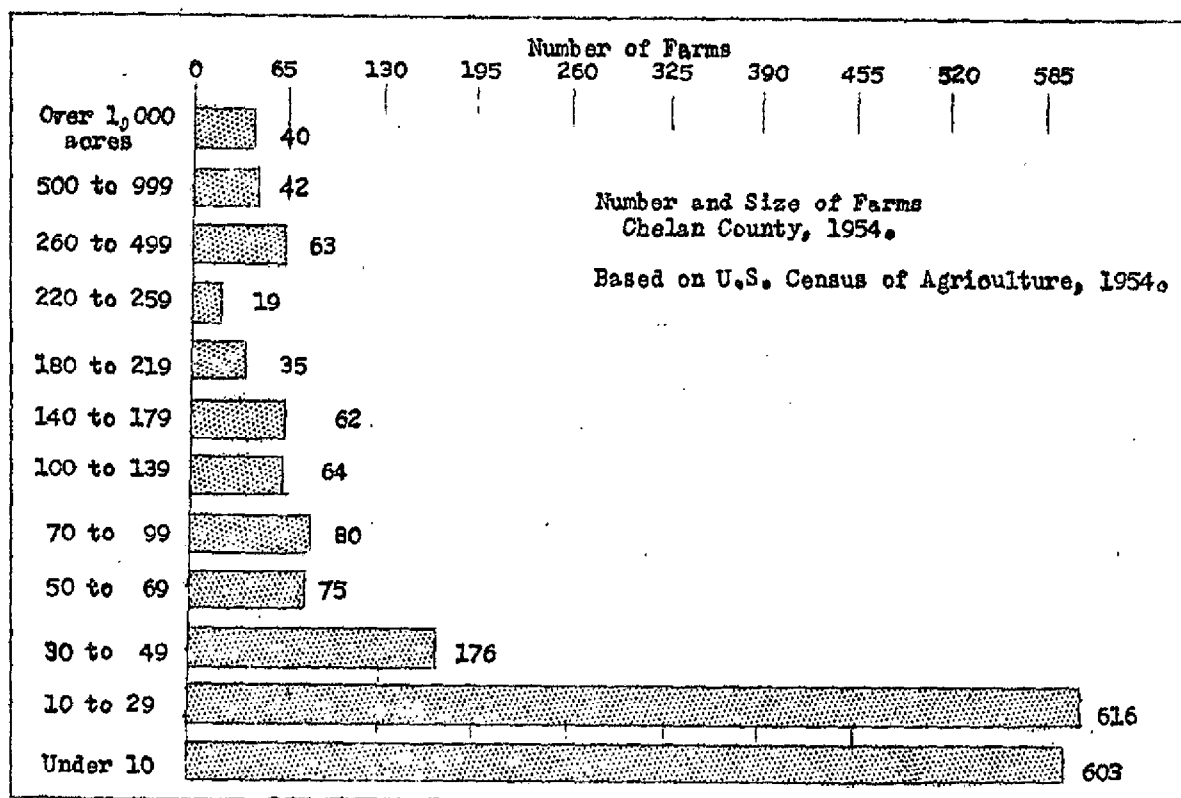


Figure 70—Number and Size of Chelan County Farms, 1954.

smaller farm properties. Estates were divided among heirs or were fragmented for easier sale as small residential or part-time farms. When properties became irrigated or stocked with bearing fruit trees, their value greatly increased. Smaller units generally found more buyers during the 1910 to 1930 period than larger farms. These and other land marketing factors have created a pattern in which 65 percent of the farms are less than 30 acres in size.

Table 9.- Chelan County Farms: Number, Total Land in Farms and Average Size of Farms 1900-1954.

Year	Total Farms in the County	Total County area in farms (acres)	Average size of farms in the county (acres)	Percent of County area in farms
1900	457	94,135	206	5.0
1910	1,661	152,613	92	8.1
1920	2,095	235,621	112	12.6
1925	2,172	158,244	73	8.4
1930	2,218	159,501	72	8.5
1940	2,079	180,588	87	9.6
1945	2,041	185,235	90	9.9
1950	1,924	189,995	99	10.1
1954	1,875	246,105	131	13.1

Source: U.S. Census, Agriculture, 1900-1954.

Table 10.- Large Farms: Number and General Land Use Chelan County, 1954

Land Utilization on Large Farms	Farms 1,000 to 4,999 acres	Farms 5,000 acres and over
Number of farms-----	356 farms	5 farms
Land in farms-----	66,312 acres	69,240 acres
Cropland harvested-----	5,079 acres	1,420 acres
Cropland used only for pasture	464 acres	190 acres
Cropland not harvested and not pastured (idle, fallow land)	5,254 acres	1,071 acres
Woodland pastured-----	16,749 acres	3,645 acres
Woodland not pastured-----	3,878 acres	2,460 acres
Other pasture (not cropland and not woodland)-----	31,507 acres	60,442 acres

Source: U.S. Census, Agriculture.

Large-Size Farms

Despite the fact that the average size of farms is 131 acres, there are 40 farms in Chelan County that exceed 1,000 acres in size. Of these, five contain 5,000 acres or more of land each. The pattern of land use shows that

the large farms are primarily situated in mountainous and hilly areas and contain mainly range lands, woodlands and woodland pastures. They also include large orchards of 100 acres or more in area. A few of the large units are beef cattle ranches.

Farm Values

Farm land and farm building values have increased greatly since 1940. As a result of irrigation and rapid growth of the fruit industry, farm property values increased sharply up to 1930. Values dropped rapidly to a record low in the 1930's during the economic depression. Increase in value was again rapid after 1940, and by 1955 farm property reached a total value of over \$55,000,000 and an average per farm of \$29,500. Large investments in tree fruit orchard plantings, improved buildings and irrigation facilities have added substantially to present values. Orchard land values are counterbalanced by the values per

Table 11.- Value of Farm Property
Chelan County, 1910-1954

Year	Total Value All Farm Property in County	County Average Values	
		Per Farm (dollars)	Per Acre (dollars)
1910	\$24,020,855	\$14,500	\$155
1920	34,819,730	16,620	148
1930	36,115,713	16,300	226
1940	13,745,699	6,600	76
1950	36,569,468	19,000	173
1954	55,290,000	29,500	289

Source: U.S. Census, Agriculture.

acre of other types of farming so that averages for the county are deceptive measures of the level of land values.

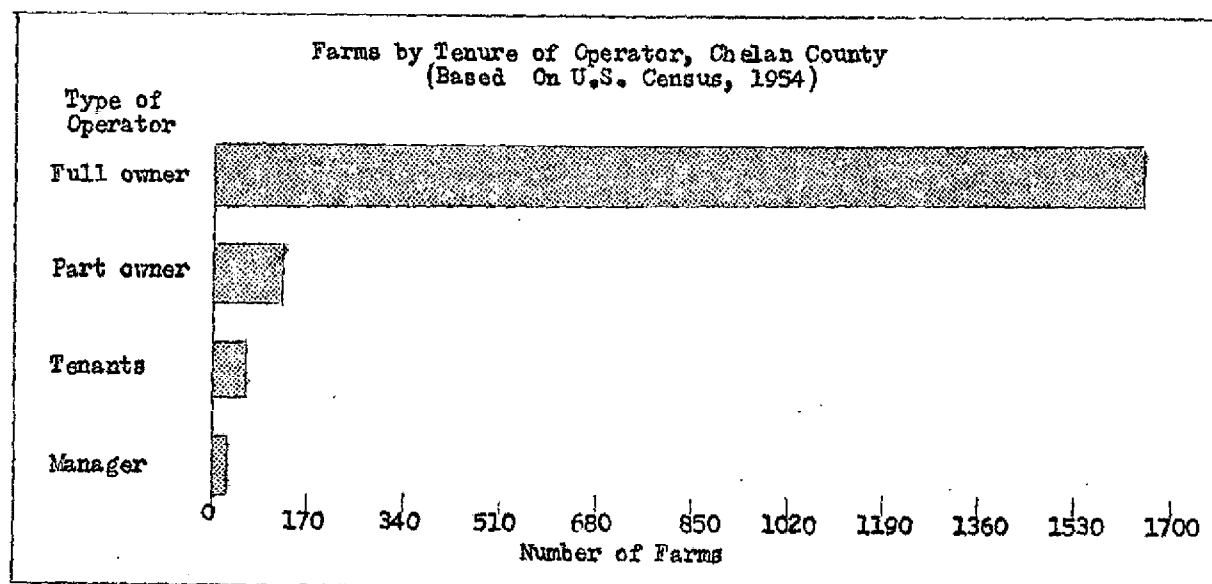


Figure 8.- Farms by Tenure of Operator, Chelan County, 1954.

Farm Tenure

A large majority (about 80 out of each 100 farmers) own and operate their farms. Tenancy, or the renting and leasing of entire farms, is uncommon. Only 58 out of 1,875 farms were operated by tenants in 1954. Many farms have remained in ownership of the pioneer families who established them. About 8 percent of farms were operated by part owners in 1954, showing an increase during the last 30 years. This pattern is caused mainly by many elderly persons and part-time workers maintaining ownership of their farms while letting other farmers operate part for a share of the crops sold or used. The farmers who own some of their land and rent land from others are classed as part-owners. Only about 3 percent of the farms were entirely operated by tenants on leases.

Table 12.- Farm Tenancy, Number and Percent of Farms
By Tenure of Operator, Chelan County
1925-1954.

Year	Number Farms in County	Full Owners		Part Owners		Managers		Tenants	
		number of farms	percent of all farms	number of farms	percent of all farms	number of farms	percent of all farms	number of farms	percent of all farms
1925	2,172	1,691	77.9	125	5.8	102	4.7	254	11.7
1930	2,218	1,788	80.6	112	5.0	134	6.0	184	8.3
1935	2,421	1,997	82.5	77	3.2	144	5.9	203	8.4
1940	2,079	1,654	79.6	118	5.7	85	4.1	222	10.7
1945	2,041	1,708	83.7	143	7.0	60	2.9	130	6.4
1950	1,918	1,700	88.6	129	6.7	34	1.8	61	3.2
1954	1,872	1,647	88.0	144	7.7	26	1.4	58	3.1

Source: U.S. Census, Agriculture.

Types of Farms

Over 70 percent of all the farm operations in Chelan County are classified as fruit and nut farms. With 1,326 properties growing tree crops, Chelan ranks second to Yakima County in this type in 1954. Miscellaneous, unclassified farms (299) are second in number. Third and fourth in importance are live-stock farms (89) and poultry raising operations (65). Census data on farm types are indications of the high degree of tree fruit farming specialization in this north central Washington region.

Farm Residence and Operation

Chelan County agriculture is characterized by the fact that over one-half of its farmers do part-time work off their farms. Many persons reside on farms and divide their employment between farm work and other industries. There is a growing demand for industrial and construction labor in the Wenatchee area. Seasonal demand for pruning, thinning, and harvesting in the commercial orchards employs a large number of small farm owners. There is also some seasonal work in the national forests and the lumber and mining industries. During 1954, there were 1,021 farm operators who reported doing some off-farm work. Of this number 723 or 38.5 percent of all the county's farmers worked

more than 100 days per year in work away from their own farms. About one-third of the farmers in this area earned more from outside work than they did from sales of fruit, livestock and other farm products.

Table 13.— Types of Farms, Chelan County, 1954.

Type of Farms	Number of Farms	Percent of all farms in the county
Total farms in county.....	1,875	
Field-crop farms.....	28	
Cash-grain.....	28	1.5
Other field-crop.....	0	
Vegetable farms.....	5	.3
Fruit-and-nut farms.....	1,326	70.7
Dairy farms.....	41	2.2
Poultry farms.....	65	3.5
Livestock farms other than dairy and poultry..	89	4.7
General farms.....	22	
Primarily crop.....	22	1.2
Primarily livestock.....	0	
Crop and livestock.....	0	
Miscellaneous and unclassified farms.....	299	15.9

Source: U.S. Census, Agriculture.

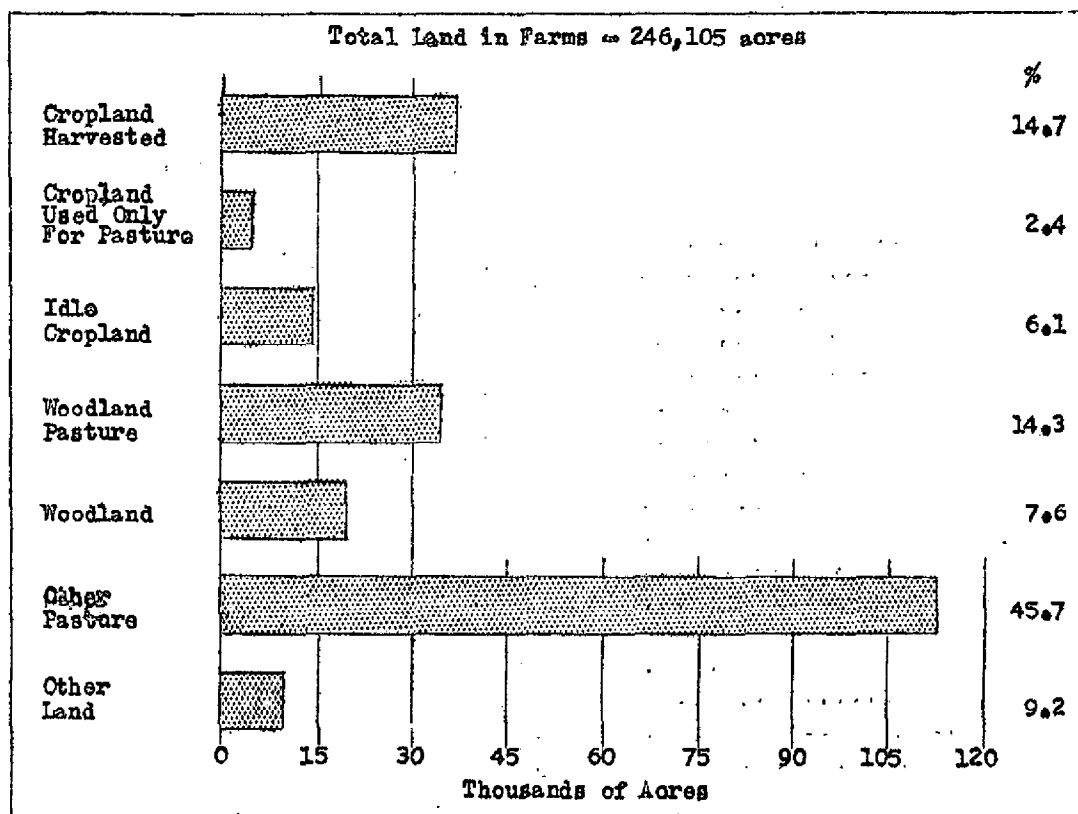


Figure 9.— Utilization of Farmland in Chelan County, 1954.

Farmland Utilization

Crops were harvested from only about 15 percent of the land in farms in 1954. An additional 8.5 percent was in idle cropland and cropland used for pasture. Because of its location on the mountainous eastern slope of the Cascade Range about 22 percent of all farmland is in woodlands and woodland pasture, amounting to nearly 54,000 acres. A large area of sloping dry land, generally grass and sagebrush covered range lands, too steep or porous for irrigation is classified as "other" pasture. These dry range pasture lands, comprising 112,531 acres, amount to 45 percent of all the land in farms.

Farm Facilities

In 1954, most of Chelan County farms were well equipped with utilities, facilities and machinery which make rural life easier, save labor and provide for efficient agricultural production. With close proximity to the Grand Coulee and Rock Island hydroelectric plants on the Columbia River, the area has excellent rural electric service provided by two private electric companies and Chelan Public Utility District One. Over 96 percent of the farms are connected with rural power lines. Telephone service is used by 79 percent of the farms. The area was considerably below western and northeastern Washington farms in the use of television in 1954, primarily because mountainous topography limits television reception from Puget Sound cities. The Wenatchee Valley area has been served by a station in Wenatchee since 1955 and use of television is rapidly expanding. Only about 10 percent of Chelan County farms were enjoying television at the time of the 1954 Census of Agriculture.

Table 14.- Specified Facilities and Equipment on Farms
Chelan County, 1954.

Facility of Equipment Item	Number of Farms Using	Percent of All Farms in County Equipped
Telephone.....	1,484	79.1
Electricity.....	1,804	96.2
Television set.....	184	9.8
Piped running water.....	1,844	98.3
Home freezer.....	727	38.8
Electric pig brooder.....	6	.3
Power feed grinder.....	41	2.2
Milking machine.....	47	2.5
Grain combines.....	48	2.6
Corn pickers.....	--	--
Pick-up balers.....	38	2.0
Field forage harvesters.....	13	.7
Artificial ponds, reservoirs and earth tanks.....	178	9.5
Motortrucks.....	1,436	76.6
Tractors.....	1,166	62.2
Automobiles.....	1,687	90.0

Source: U.S. Census, Agriculture.

Consumption of electricity in 1950 was above the farm average over the state according to the Census enumeration. The average monthly farm electric bill in 1950 was \$10.06 in Chelan County compared to \$8.52 for all farms in the state. Because of its specialized orchard type of agriculture, ownership of farm tractors and crop harvesters was below the state average. Reflecting a high farm income, over 90 percent of the farms had automobiles and 77 percent had trucks.

Irrigation and Facilities

Irrigation is of vital importance in Chelan County 's highly developed tree fruit farming industry. Because of the dry summer climate in the fruit growing valleys, there was an early interest in major irrigation works. The interest continues with more and improved facilities for getting water on crop-land during the growing season. In 1954, Chelan County ranked seventh in the state with 28,070 acres of land irrigated and 1,691 farms using irrigation. Nine farms out of ten use irrigation to some degree.

Expansion of irrigated land and use of minor facilities such as pumps, sprinklers and movable pipes has continued in recent years. Since 1949 about 1,000 additional acres have been brought under irrigation. There has been an increase in the irrigation of pasture and field crops such as alfalfa. Major irrigation works are of the canal and ditch gravity type. Most of the ditch-irrigated land is in the Wenatchee Valley, where Wenatchee River and tributary waters are diverted into the High Line Ditch which irrigates the higher orchard growing benchlands at Wenatchee. Other important diversion ditches are the Olive, Jones-Shotwell and Gunn Ditches which carry water to the terrace orchard lands of the middle Wenatchee Valley. Another important ditch and canal system is the Manson irrigation district along a benchland overlooking Lake Chelan. Numerous small irrigation systems are owned by individual farms who use pumps, pipes and small gravity systems.

Table 15^a—Irrigated Farms: Number and Acreage
Chelan County, 1950 and 1954

Item	1950	1954
Number of irrigated farms.....	1,762	1,691
Land in irrigated farms.....	133,860 acres	140,195 acres
Land irrigated ^{1/}	27,018 acres	28,070 acres
Irrigated land in farms according to use:		
Farms irrigating crops.....	1,733	1,665
Farms irrigating pasture.....	184	186
Acres of crops irrigated.....	22,282	25,397
Acres of pasture irrigated.....	860	1,118

^{1/} Includes land irrigated by canals, pipes and overhead sprinkler systems.

Source: U.S. Census, Agriculture.

Table 16.—Chelan County's Rank Compared With
Other Washington Counties

Item Compared	Rank	Quantity	Year
<u>General.</u>			
Land area	3	1,875,840 acres	1954
Number of farms	12	1,875 farms	1954
Land in farms--percent	31	13.1 percent	1954
Average size of farms	21	131 acres	1954
Cropland harvested	23	36,247 acres	1954
Rural farm population	11	8,990 persons	1950
Total county population	16	39,301 persons	1950
<u>Cash farm income</u>			
Value of all farm products sold ...	4	27,729,500 dollars	1954
Value of livestock sold	33	680,521 dollars	1954
Value of crops sold	23	26,960,891 dollars	1954
<u>Livestock on farms</u>			
All cattle and calves	34	7,600	1954
Milk cows	30	1,095 head	1954
Hogs	29	903 head	1954
Chickens	24	35,735 birds	1954
Horses and mules	20	952 head	1954
Sheep and lambs	16	2,817 head	1954
<u>Dairy and poultry products sold</u>			
Value of dairy products sold	30	151,036 dollars	1954
Whole milk sold	29	2,699,000 pounds	1954
Value of poultry products sold ...	22	180,316 dollars	1954
Chickens sold	27	20,947 birds	1954
Eggs sold	26	192,632 doz.	1954
<u>Important crops harvested</u>			
Tree fruits	2	22,165 acres	1954
Barley	23	506 acres	1954
Alfalfa	16	4,171 acres	1954
Wheat	18	5,494 acres	1954

Source: U.S. Censuses of Agriculture, 1950, 1954.